



## Editorial

## Frontiers in research in business: Will you be in?



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How did you research 18 years ago? Certainly your current type of research is better, but not necessarily updated. This editorial tries to review the major drivers of such change and more interestingly to draw the type of research for the coming years.

There is no single view of research, but most of the research is based on a quantitative approach. This approach was developed on data that come from surveys, transactions, stock prices, company data and profile, among others. Once data are gathered from one or multiple sources, researchers attempt to figure out relationships based on numbers or codes (i.e. in surveys) in order to test hypothesis or build up more elaborated models using structural equation modelling, econometric models or artificial neural networks to name a few options. These types of approaches based on gathering data from formal sources, both reported and self-reported data, are still valid and constitute a fruitful path for management discoveries. However, during the last 18 years three main trends have changed the research landscape that offer new opportunities and rooms for improvement in management research.

Firstly, *numbers and codes are only part of the landscape*. Internet brings a new source of data where numbers are one type of data. A clear manifestation of the change was the Google's browser launched 18 years ago. At that time, the potential use of searching "a thing" had no value. Nevertheless, nowadays searching activities can be retrieved and analyzed. As a result, companies are looking for a new type of consumer, adopting retargeting strategies (Lambrecht & Tucker, 2013) or website morphing (Hauser, Urban, Liberali, & Braun, 2009). Other units of valid information, to name a few, are websites, pictures, videos, social media content, online reviews, searching routines and browsing activities that are available for researchers and must change the way of gathering data. Furthermore, data are available at a high volume, with velocity and variety. The efforts of increasing sample size are naive in comparison with the so-called Big Data.

Some examples may reinforce this new scenario. An interesting research by Vu, Li, Law, and Ye (2015) showed the most visited places, visitors' paths and tourist activities in a destination through pictures uploaded to Flickr. Another fresh perspective is shown by Bollen, Mao, and Zeng (2011), who analyzed the relationship between sentiment analysis of Tweets feeds and the value of the Dow Jones Industrial Average.

Secondly, physical associations are no longer exits; rather a new scenario featured by *omni connection* driven by smartphones, a multi-connected context and ecommerce is becoming usual in the market place. New ICTs, such as mobile phones have been spread everywhere and somehow are substituting traditional computers locked into a single and physical place. As a result, users are continuously connected in terms of time and place that overcomes physical distance and single-task settings. Nowadays, multitasking, new ways of communicating between people (e.g. sms or whatsapp) and product substitution of cameras, calculators or payment methods by smartphones are affecting manufacturers and retailers.

Omni connection reflects a new consumer who is connected everywhere and with many peers through social media platforms. The new concept of omni channel is part of this new omni connection scenario, fostered by virtual reality and augmented reality. The traditional flow from a powerful sender is being replaced by a peer-to-peer influence, which has its major manifestation in social media and online comments where user-generated content challenges the traditional communication path from the company to the consumer. This is of particular interest in services such as tourism, where consumers adopt comments (e.g. TripAdvisor) as a valuable source of information and also as a key driver for buying decisions. Even more, online aggregators such as Google Shopping or Kayak diminish the cost of searching for information that allows consumers to expand their sources of information.

Ecommerce is a growing channel for buying decisions that connects companies and consumers from many places. Brick and mortar retailers are expanding their close markets favoring sales everywhere. In that context, speed delivering (i.e. Amazon serves some areas in less than 1 h) is becoming critical and new companies for logistics are emerging as new intermediaries. Consumers do not need to move to the stores, neither carry the products. New agents, both online retailers and delivering services are replacing these two functions typically done by consumers. Interestingly enough, companies are no longer sole providers. The peer-to-peer scheme fosters some commercial relationships that challenge the traditional flow from companies to consumers. Consumer-to-consumer ecommerce is emerging with clear examples such as Airbnb or Uber, deriving into new social tensions. This is just the iceberg of a new business orientation where consumers drive the initiative where companies must provide the institutional and technological marketplaces in order to make exchanges possible.

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In sum, this omni connection driven by multiple ICTs, mobile technologies, software for social media and ecommerce augmented and virtual reality are fostering a new scenario featured by a new what, when, where and how products and services are bought and delivered where consumer empowerment is a real change.

Thirdly, *research technologies are becoming friendly and cheaper*. Neuroscientific tools are becoming popular in management research. A myriad of techniques from eye tracking, face reader, galvanic skin conductance, electroencephalogram signals (EEG), positron emission tomography (PET) to functional magnetic resonance imaging (fMRI) are expanding the way of researching in entrepreneurship, marketing, investment (Frydman, Barberis, Camerer, Bossaerts, & Rangel, 2014) or tourism (Bigné, 2015a). Time, attention, emotions, associations, movements, rewards, risks, aversion, avoidance and some other implicit measures are now the focus of research. Just think about time. How much time do consumers spend choosing a product? How does it affect further choosing behavior? How much time is needed for evaluating a website? These and other related issues are addressed through neuroscientific tools and deriving into publications (see Bigné, Llinares, & Torrecilla, 2016; Lindgaard, Fernandes, Dudek, & Brown, 2006).

A new paradigm shift is knocking on the door of researchers (Bigné, 2015b), featured by multidisciplinary-based groups, blurred and mixed frontiers of disciplines, knowledge dissemination taking place not only in managerial journals and mixed research methods (see Molina-Azorín, 2016). Interestingly enough, new and fresh research will drive our research in the coming years. Why would endocrinology and genetics not be part of our research as Bagozzi and Verbeke (2014) posit? The future is not always predicted by

the past. Just a final reflection for all of us, how did you research 18 years ago?

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